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(54) Title: CHITOSAN-CALCIUM COMPLEX AND METHODS OF PRODUCING THE COMPLEX

(57) **Abstract:** Chitosan-calcium complexes of calcium (II) ions with a gel of a chitosan salt, containing not less than 0.5 wt % of the polymer with an average molecular weight not less than 10 kD, a polydispersity degree not lower than 2.0 and a deacetylation degree at least 65 %. The complex is characterized by pH not higher than 6.9 and a calcium Ca (II) ions content not less than 0.1 wt % on chitosan. Methods to prepare chitosan-calcium complexes use a gel of a chitosan salt, containing not less than 0.5 wt % of the polymer. Calcium salts are introduced in the amount of at least 0.1 wt % Ca (II) on chitosan weight. The mixture is next homogenized and reacted at 10°C during a time not shorter than 1 minute. Methods of producing a gel of chitosan salts involves subjecting a chitosan with the concentration of at least 0.5 wt% in an aqueous acidic solution to a controlled enzymatic, hydrolytic or oxidative degradation.